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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/787,641	06/08/2001	Robert DeHaan	0264-0002	4624
23552	7590	08/23/2005	EXAMINER	
MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			TOOMER, CEPHIA D	
			ART UNIT	PAPER NUMBER
			1714	

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/787,641	Applicant(s) DEHAAN ET AL.	
	Examiner Cephia D. Toomer	Art Unit 1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on 08 June 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,4-6,8-22,26 and 57 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4,5,8,10,11,14,19-22 and 26 is/are rejected.
- 7) ☒ Claim(s) 6,9,12,13,15-18 and 57 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

This Office action is in response to the amendment filed June 8, 2005 in which claim 1 was amended.

#### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO9214808.

WO9214804 teaches a low aromatic diesel fuel comprising mainly a mixture of hydrocarbons containing not more than 1% vol of aromatic type hydrocarbons (see abstract; page 2, paragraph 3-4). WO teaches that the fuel composition of its invention is "virtually free of polynuclear aromatic hydrocarbons." See page 3, first full paragraph.

WO teaches the limitations of the claim other than the differences that are discussed below.

In the first aspect, WO differs from the claims in that it does not specifically teach a range for the mononuclear and polynuclear aromatic compounds. However, no unobviousness is seen in this difference because WO's teaching of less than 1% aromatic hydrocarbons and virtually no polynuclear aromatic compounds overlaps Applicant's claimed range of between 0.44 mass % and 8.99 mass% monocyclic aromatic and less than 0.01 mass% polycyclic aromatics. In the case where the

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claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 191 USPQ 90 (CCPA 1976); In re Woodruff 16 USPQ2d 1934 (Fed. Cir 1990).

In the second aspect, WO differs from the claims in that it does not teach that the distillate cut is derived from a FT primary product. However, no unobviousness is seen in this difference because WO teaches a similar distillate cut that meets or renders obvious the claimed limitations. Therefore, it would be reasonable to expect that the distillate cut of WO would perform its attendant function.

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pedersen (US 6,461,467).

Pedersen teaches a reformulated diesel fuel containing 1.0 wt % polycyclic aromatics and an aromatic content of less than 9 vol % (see abstract; col. 5, lines 39-47,66-67; col. 6, lines 1-9; claims 1 and 15-19).

Pedersen teaches the limitations of the claim other than that the distillate cut is derived from a FT primary product. However, no unobviousness is seen in this difference because Pedersen teaches a similar distillate cut that meets or renders obvious the claimed limitations. Therefore, it would be reasonable to expect that the distillate cut of Pedersen would perform its attendant function.

4. Claims 1, 4, 5, 8, 10, 11, 14, 19-22 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Slyke (US 5,635,457).

Van Slyke teaches synthetic isoparaffin fluids wherein the maximum percentage of aromatics is 1 % (see Table III, page 4). The fluids contain from greater than 50 up

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to 99 % isoparaffins. At least 95 wt% of the fluid is composed of compounds containing 11 or more carbon atoms wherein at least 5% contain 17 or more carbon atoms and up to 50% contain 18 or more carbon atoms (see col. 2, lines 35-54; Table I). The synthetic fluids are made by reacting  $H_2$  and CO (Fischer-Tropsch) (see col. 1, lines 53-54; col. 2, lines 1-4).

Van Slyke teaches the limitations of the claims other than the differences that are discussed below.

In the first aspect, Van Slyke differs from the claims in that it does not specifically teach a range for the mononuclear and polynuclear aromatic compounds. However, no unobviousness is seen in this difference because Van Slyke's teaching of a maximum amount of 1% aromatic hydrocarbons overlaps Applicant's claimed range of between 0.44 mass % and 8.99 mass% monocyclic aromatic and less than 0.01 mass% polycyclic aromatics. In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 191 USPQ 90 (CCPA 1976); In re Woodruff 16 USPQ2d 1934 (Fed. Cir 1990).

In the second aspect, Van Slyke differs from the claims in that he does not specifically teach the amount of methyl or ethyl branching. However, it would be reasonable to expect that there would be methyl and ethyl branching since Van Slyke teaches that he prepares his distillate cut from a Fischer-Tropsch product and isoparaffins contain methyl and ethyl branching.

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5. Claims 6, 9, 12, 13, 15-18 and 57 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art fails to teach or suggest the ratio of isoparaffins to n-paraffins and the gradient of isoparaffins to n-paraffins.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cephia D. Toomer whose telephone number is 571-272-1126. The examiner can normally be reached on Monday-Thursday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read "Cepha D. Toomer". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Cepha D. Toomer  
Primary Examiner  
Art Unit 1714

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